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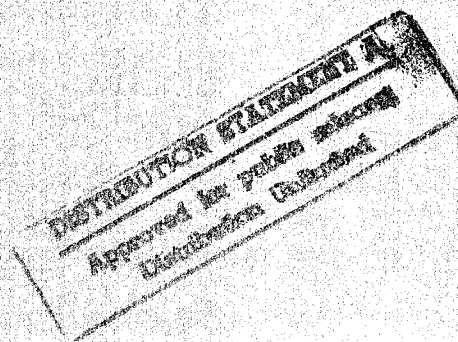
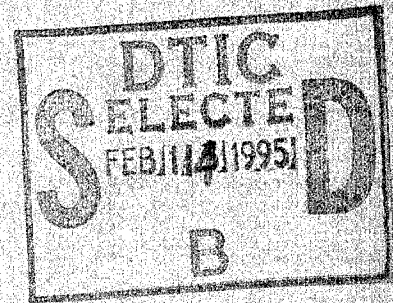
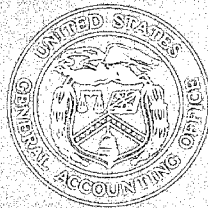
United States General Accounting Office

Report to the Chairman, Committee on
Science, Space, and Technology
House of Representatives

December 1994

DEFENSE RESEARCH AND DEVELOPMENT

Mandated Reports on Noncompetitive Awards to Colleges and Universities



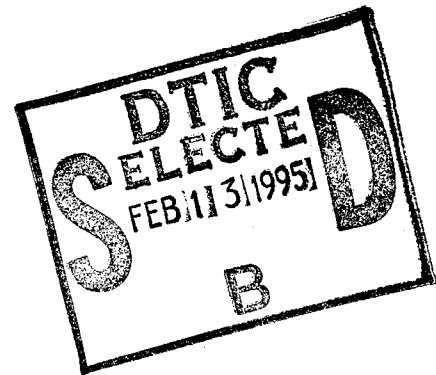
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National Security and
International Affairs Division

B-259595

December 30, 1994

The Honorable George E. Brown, Jr.
Chairman, Committee on Science,
Space, and Technology
House of Representatives



Dear Mr. Chairman:

This report responds to your request that we review all Department of Defense (DOD) research and development contracts and grants awarded to colleges, universities, consortia that include colleges or universities, and/or college or university trusts by DOD to determine compliance with the restrictions, notice, and reporting requirements in 10 U.S.C. 2361. As agreed with your staff, this report focuses on fiscal year 1993 awards and includes data on related organizations, such as university-affiliated laboratories, that are not subject to section 2361.

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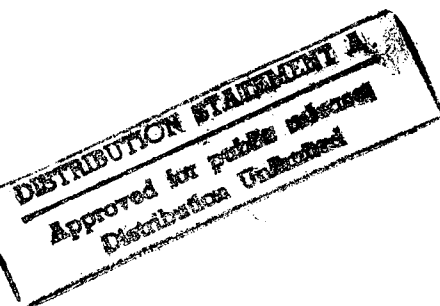
In 1988 Congress enacted 10 U.S.C. 2361. As amended, this law requires, among other things, that the Secretary of Defense report to the Senate and House Committees on Armed Services on the use of competitive procedures in awarding research and development contracts to colleges and universities. Generally, the reports are to list the colleges and universities that received more than \$1 million in noncompetitive contracts and the cumulative amount of such contracts these colleges and universities received. The law did not require DOD to prepare reports after December 31, 1993. However, the National Defense Authorization Act for Fiscal Year 1995 extended the reporting requirement.

The law also requires the Secretary of Defense to notify Congress in writing of certain proposed noncompetitive contract and grant awards and to wait 180 days before making these awards. The notification and waiting period requirements have continued uninterrupted since 1988.

Results in Brief

DOD awarded about \$2.17 billion—\$1.4 billion in contract funding and \$769 million in grants—for research, development, test, and evaluation (RDT&E) to colleges, universities, and other organizations (including university-affiliated laboratories) in fiscal year 1993. DOD's data shows that about \$1 billion of these contract actions and about \$75 million in grants were noncompetitive.

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DOD has not fully complied with 10 U.S.C. 2361 reporting requirements in that it only submitted the required reports for 1989 to 1991, and not for 1992 or 1993. Section 2361 does not require DOD to disclose all noncompetitive DOD RDT&E awards to colleges, universities, and related organizations in the mandated reports because it excludes funding under \$1 million and excludes awards to affiliated organizations such as research laboratories.

10 U.S.C. 2361 notification and waiting period requirements only apply under very limited circumstances. As a result, DOD has not had to notify Congress or wait 180 days before making any of its noncompetitive awards and, according to DOD officials, has not done so.

DOD Awarded Over \$2 Billion for RDT&E to Colleges, Universities, and Related Organizations in Fiscal Year 1993

DOD awarded thousands of contracts and grants to U.S. educational and other related organizations (including university-affiliated laboratories) for RDT&E in fiscal year 1993. This funding amounted to about \$2.17 billion.¹ Data we obtained from DOD shows that contract actions accounted for \$1.4 billion of the awards, while grants accounted for \$769 million. Table 1 shows the 10 university-related organizations that received the most contract and grant funding from DOD for RDT&E in fiscal year 1993. These 10 recipients account for 54 percent of the value of the awards in this study, 70 percent of the value of contract funding, and 24 percent of the value of grants.

Appendix I lists the colleges, universities, and other related organizations receiving DOD RDT&E funding in fiscal year 1993 and specifies the unit or location of recipients. Appendix II provides summary data on which services and DOD agencies provided RDT&E funding to these recipients.

¹DOD also awarded over \$3 million in contract funding (over \$500,000 noncompeted) to foreign educational organizations for RDT&E in fiscal year 1993.

Table 1: Top 10 Colleges, Universities, and Related Organizations Receiving DOD Contract and Grant Funding for RDT&E in Fiscal Year 1993

Dollars in thousands

Organization	Contract funding	Grants	Total funding
Massachusetts Institute of Technology	\$359,905	\$42,187	\$402,092
Johns Hopkins University	238,325	5,705	244,030
Pennsylvania State University	84,056	12,563	96,619
University of Texas System	62,818	17,201	80,019
University of California System	15,017	61,516	76,533
Illinois Institute of Technology	62,342	1,793	64,135
Carnegie Mellon University	53,845	9,206	63,051
Charles Stark Draper Laboratory	53,260	0	53,260
University of Pittsburgh	42,460	4,230	46,690
Stanford University	11,649	26,496	38,145
Total	\$983,677	\$180,897	\$1,164,574

Note: Table includes data on university-affiliated laboratories.

Most Contract Actions Were Not Competed, but Most Grants Were

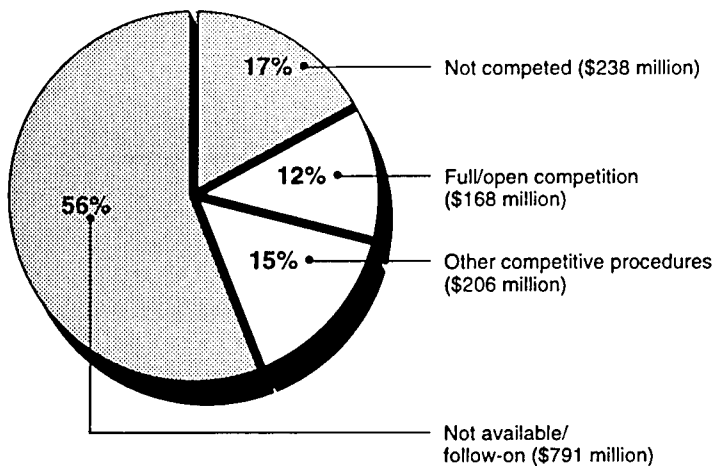
The majority of the \$1.4 billion fiscal year 1993 RDT&E contract actions to colleges, universities, and other related organizations (including foreign) were not competed: about \$791 million (56 percent) in contract actions were not available for competition or were follow-ons to previously competed actions, and about \$238 million (17 percent) in contract actions were not competed. DOD awarded about \$206 million (15 percent) using competitive procedures other than full and open competition. DOD made only about \$168 million (12 percent) in contract actions through full and open competition.

With regard to grants, according to information provided by contracting personnel on DOD's grant action report, only eight of its fiscal year 1993 grants to educational organizations did not meet DOD criteria as competed grants. DOD officials also told us that all of its RDT&E grants are competed unless they are made under statutory earmarks that specifically supersede section 2361. These grants accounted for about \$75 million, or 9.75 percent, of the value of fiscal year 1993 grants. In February 1994, DOD instructed grants officers to use broad competition to the maximum extent feasible and practicable by requiring, at a minimum, at least two eligible prospective proposers.

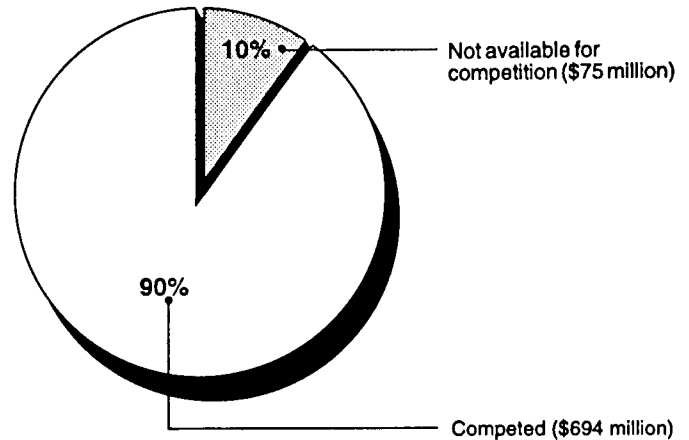
Figure 1 shows the proportion and amount of competitive and noncompetitive DOD RDT&E funding for colleges, universities, and other related organizations in fiscal year 1993, and appendix I lists complete data for fiscal year 1993 contracts and grants.

Figure 1: Level of Competition in DOD RDT&E Funding for Colleges, Universities, and Other Related Organizations (Including Foreign) in Fiscal Year 1993

Dollar value of contract actions



Dollar value of grants



Note: Figure includes data on university-affiliated laboratories. Not available/follow-on value includes contract actions not available for competition or follow-ons to previously competed actions.

DOD Did Not Submit All of the Reports Required by 10 U.S.C. 2361

Congress enacted 10 U.S.C. 2361 in 1988 and amended the statute in 1989, adding a requirement that DOD submit reports to the Senate and House Committees on Armed Services for the award of research and development contracts, and the award of construction contracts, to colleges and universities. Initially, the law did not require DOD to prepare reports after December 31, 1993. DOD submitted five semiannual reports covering the period July 1989 to December 1991 but did not submit reports for 1992 or 1993.² A DOD official told us he failed to prepare these reports

²The 1989 amendment (P.L. 101-189, 252(a)) called for semiannual reports. A 1990 amendment (P.L. 101-510, 1311(4)(A)) required annual reports, and the most recent amendment (P.L. 103-337, 813) continues the annual reporting requirement.

because of staff changes and because other projects took priority over preparing the reports.

The five reports DOD did submit included statistics on the level of competition in some DOD contracts. For selected colleges and universities receiving over \$1 million in noncompetitive RDT&E contracts, the reports show the number and dollar amount of contracts competed, contracts not competed, contracts not available for competition, and follow-ons to previously competed actions.

The National Defense Authorization Act for Fiscal Year 1995 extends this reporting requirement indefinitely, and the accompanying Senate report calls for DOD to submit the 1992 and 1993 reports. In November 1994, a DOD official told us that he had begun preparing these reports. A November 1994 memorandum from the Secretary of Defense assigned responsibility for producing subsequent reports to the Under Secretary of Defense for Acquisition and Technology.

Law Does Not Require Reports to Include Complete Information

In the reports prepared pursuant to 10 U.S.C. 2361(c)(1), DOD was not required to include information on university-affiliated entities, such as certain research laboratories and other related organizations. For example, the five reports do not show the funding Johns Hopkins' Applied Physics Lab received; in fiscal year 1993, the Applied Physics Lab received about \$235 million in noncompetitive contracts actions.

Furthermore, 10 U.S.C. 2361(c)(1) does not require DOD to include grants in the mandated reports—even though grants are a major focus of the law. DOD awards some grants on a noncompetitive basis, in accordance with statutory earmarks that explicitly supersede section 2361. For example, in fiscal year 1993 DOD awarded eight noncompeted research and development grants to colleges and universities, totaling about \$75 million. A Senate Report accompanying the National Defense Authorization Act for Fiscal Year 1995 calls for DOD to continue including information on grants, as well as contracts, in the required reports, although DOD has not included grants in its previous reports.³

³Senate Report 103-282 to accompany S. 2182, the National Defense Authorization Act for Fiscal Year 1995.

Reports compiled by DOD's Washington Headquarters Services (WHS) include information on contracts and grants.⁴ However, these reports do not address the level of competition in awarding the contracts and grants, although such information is readily available in DOD's databases. Appendix I shows a sample report we developed using fiscal year 1993 data available from WHS.

Notification and Waiting Period Requirements Are Generally Inapplicable

10 U.S.C. 2361(b)(2) establishes congressional notification and waiting period requirements for certain noncompetitive DOD awards to colleges and universities. The subsection provides that a grant may not be made, or a contract awarded, pursuant to a provision of law that authorizes or requires the making of the grant, or the awarding of the contract, in a manner inconsistent with the competition requirements of 10 U.S.C. 2361(a) until the Secretary of Defense notifies Congress and waits 180 days.⁵

DOD officials told us that most, if not all, DOD RDT&E contract and grant actions to colleges and universities are not subject to these notice-and-wait requirements. Basically, this is because most RDT&E contracts and grants to colleges and universities are either competed or awarded noncompetitively under an exemption to competition recognized by section 2361(a) (e.g., certain sections of the Competition in Contracting Act). DOD officials believe that there have been no instances where notification and a waiting period were required, and DOD has not notified Congress or waited 180 days prior to making any awards in fiscal year 1993.

Conclusions and Observations

Although DOD complied with 10 U.S.C. 2361 when it provided reports for 1989 through 1991, these mandated reports did not disclose all noncompetitive RDT&E awards to educational and other related organizations. The reports only provide information on contracts and exclude millions of dollars in grants. The reports do not include certain related organizations, nor do they include complete information on contract awards because the law requires reporting only on colleges and universities receiving over \$1 million in noncompetitive contracts. Our

⁴WHS, a DOD office that collects data on contract and grant activities, produces the yearly report Educational and Other Nonprofit Institutions Receiving DOD Prime Awards of Contracts, Grants, and Agreements for RDT&E.

⁵A congressional earmark in a committee report is not a "provision of law." We found earmarks in House Report 102-1015 (the Conference Report to accompany H.R. 5504, Making Appropriations for the Department of Defense for the Fiscal Year Ending September 30, 1993, and for Other Purposes).

analysis shows that the mandated report for 1993 would exclude about \$11 million in contracts under \$1 million to colleges and universities. Furthermore, the section requires DOD to report contract activity on a calendar year basis. This is inconsistent with other government reports on educational awards and is inconsistent with the reports WHS compiles on a fiscal year basis.

If desired, Congress could obtain more complete information about noncompetitive awards from WHS. For example, current WHS reports contain information on DOD RDT&E awards (contracts over \$25,000, as well as grants regardless of dollar value). The reports also include, among other things, information on organizations related to colleges and universities, including university-affiliated laboratories. These reports cover fiscal years rather than the calendar years section 2361 reports must cover.

DOD officials said that although these WHS reports do not provide information on the competitive procedures DOD uses in making awards, such information is available in their databases. WHS could enhance its existing reporting format by adding information on competition. With minimal burden, such revised reports could further disclose DOD's RDT&E funding activity. We have provided an example of such a reporting format in appendix I.

Scope and Methodology

To determine DOD compliance with 10 U.S.C. 2361, we obtained information on its reports from the Office of the Secretary of Defense and cognizant DOD officials. We also reviewed the law's requirements and obtained an interpretation of the law from DOD's Office of the General Counsel. To assess the types and amounts of DOD awards for RDT&E, we analyzed data from DOD's contracts (DD350) database and from the WHS grants database. Using this information, we developed the awards report shown in appendix I. We were unable to analyze separately all funding to related organizations because of the way DOD data was aggregated.

As agreed with your staff, we did not obtain written comments from DOD on a draft of this report. However, we discussed our findings and conclusions with DOD officials. DOD explained that many of the "related organizations" listed in the report (such as university-affiliated research laboratories) routinely receive noncompetitive contracts in full compliance with applicable laws and regulations. In addition, DOD officials stated that all DOD RDT&E grants to the types of organizations discussed in the report are competed unless they are statutory earmarks. We revised

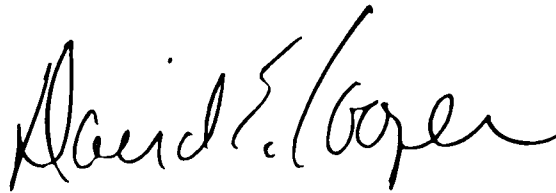
the report where appropriate in response to this and other information provided by DOD officials.

We conducted our review between July and December 1994 in accordance with generally accepted government auditing standards.

We are sending copies of this report to other appropriate congressional committees and the Secretary of Defense. We will also make copies available to others on request.

Please contact me at (202) 512-4587 if you or your staff have any questions concerning this report. Appendix III lists the major contributors to this report.

Sincerely yours,

A handwritten signature in black ink, reading "David E. Cooper". The signature is fluid and cursive, with the first name "David" being the most prominent.

David E. Cooper
Director, Acquisition Policy, Technology,
and Competitiveness Issues

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Abbreviations

DOD	Department of Defense
RDT&E	research, development, test, and evaluation
WHS	Washington Headquarters Services

DOD Funding for RDT&E for Colleges, Universities, and Other Related Organizations in Fiscal Year 1993

Dollars in thousands

Organization/location	Total funding	Contract actions			Grants		
		Not competed	Completed		Not available or follow-on	Not available for competition	Completed
			Full/open	Other than full/open			
Alabama A & M University	\$1,449	\$95	0	\$663	0	0	\$691
Huntsville	30	0	0	30	0	0	0
Normal	1,419	95	0	633	0	0	691
Alaska Pacific University							
Anchorage	108	0	0	0	0	0	108
Albert Einstein College							
New York, N.Y.	317	0	0	178	0	0	139
Alcorn State University							
Lorman, Miss.	65	0	\$65	0	0	0	0
Alfred University							
Alfred, N.Y.	475	0	35	0	0	0	440
Amherst College							
Amherst, Mass.	19	0	0	0	0	0	19
Arizona State University	4,666	64	51	340	0	0	4,211
Tempe	4,615	64	0	340	0	0	4,211
Tucson	51	0	51	0	0	0	0
Auburn University							
Auburn, Ala.	2,763	500	296	919	0	0	1,048
Augsburg College							
Minneapolis, Minn.	219	0	219	0	0	0	0
Barnard College							
New York, N.Y.	92	0	0	0	0	0	92
Baylor University, Tex.	794	0	0	261	0	0	533
Dallas	283	0	0	0	0	0	283
College of Medicine, Houston	511	0	0	261	0	0	250
Boise State University							
Boise, Idaho	166	0	0	0	0	0	166
Boston College, Mass.	3,380	0	370	2,955	0	0	55
Boston	2,178	0	0	2,153	0	0	25
Chestnut Hill	30	0	0	0	0	0	30
Newton	1,172	0	370	802	0	0	0
Boston University							
Boston, Mass.	36,070	0	598	3,815	0	\$29,000	2,657

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**Appendix I
DOD Funding for RDT&E for Colleges,
Universities, and Other Related
Organizations in Fiscal Year 1993**

Dollars in thousands

Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Bowie State University							
Bowie, Md.	150	0	0	0	\$150	0	0
Bowling Green State University							
Bowling Green, Ohio	201	0	0	0	0	0	201
Brandeis University							
Waltham, Mass.	2,787	0	209	328	0	2,000	250
Brigham Young University							
Provo, Utah	783	0	245	0	0	0	538
Brown University							
Providence, R.I.	8,058	120	300	0	0	0	7,638
Bucknell University							
Lewisburg, Pa.	20	0	0	0	0	0	20
California Institute of Technology							
Pasadena	19,914	165	0	1,360	0	0	18,389
California State University System							
Hayward	27	0	0	0	0	0	27
Los Angeles	84	0	0	0	0	0	84
Northridge	105	0	0	0	0	0	105
Port Hueneme	217	0	217	0	0	0	0
San Diego	1,386	0	1,286	0	0	0	100
San Francisco	187	0	0	0	0	0	187
San Jose	367	0	0	0	0	0	367
San Luis Obispo	116	0	0	0	0	0	116
Central State University							
Wilberforce, Ohio	723	0	89	262	0	0	372
Chaminade University of Honolulu							
Honolulu, Hawaii	167	0	0	0	0	0	167
Chicago State University							
Monterey, Ill.	1	0	0	0	0	0	1

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Organization/location	Total funding	Contract actions				Grants	
		Not completed	Competed		Not available or follow-on	Not available for competition	Completed
			Full/open	Other than full/open			
City University of New York, N.Y.	3,995	0	348	98	0	0	3,549
Flushing	362	0	0	0	0	0	362
New York	3,633	0	348	98	0	0	3,187
Claremont University Center							
Claremont, Calif.	3	0	0	0	0	0	3
Clark Atlanta University							
Atlanta, Ga.	2,175	0	382	661	0	0	1,132
Clark University							
Worcester, Mass.	457	0	0	0	0	0	457
Clarkson University							
Potsdam, N.Y.	1,151	0	345	35	0	0	771
Clemson University	3,030	0	258	1,378	115	0	1,279
Clemson, S.C.	2,986	0	258	1,378	115	0	1,235
Potsdam, N.Y.	44	0	0	0	0	0	44
Cleveland Advanced Manufacturing Program							
Cleveland, Ohio	2,414	0	0	0	2,414	0	0
College of Charleston							
Charleston, S.C.	14	0	0	0	0	0	14
College of William and Mary, Va.	886	12	134	0	0	0	740
Gloucester Point	543	12	134	0	0	0	397
Newport News	50	0	0	0	0	0	50
Williamsburg	293	0	0	0	0	0	293
Colorado School of Mines							
Golden	1,172	303	0	0	0	0	869
Colorado Seminary							
Denver	1,271	0	1,191	80	0	0	0
Colorado State University							
Fort Collins	4,038	0	1,224	180	0	0	2,634
Columbia College of Chicago							
Chicago, Ill.	92	0	0	0	0	0	92

(continued)

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Dollars in thousands

Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Columbia University							
New York, N.Y.	9,271	140	200	1,909	0	0	7,022
Cornell University, N.Y.							
Ithaca	17,655	0	958	3,243	0	0	13,454
	17,557	0	958	3,243	0	0	13,356
New York	98	0	0	0	0	0	98
Dartmouth College							
Hanover, N.H.	3,065	0	0	70	0	0	2,995
De Paul University							
Chicago, Ill.	23	0	0	0	0	0	23
Delaware State University							
Dover	641	0	0	0	0	0	641
	639	0	0	0	0	0	639
Monterey	2	0	0	0	0	0	2
Charles Stark Draper Laboratory, Mass.							
	53,260	46,772	2,739	3,740	9	0	0
Boston	1,415	156	1,259	0	0	0	0
Cambridge	51,845	46,616	1,480	3,740	9	0	0
Drexel University							
Philadelphia, Pa.	2,145	0	445	336	0	0	1,364
Duke University, N.C.							
Beaufort	6,830	0	465	3,253	0	0	3,112
	167	0	0	0	0	0	167
Durham	6,663	0	465	3,253	0	0	2,945
Duquesne University							
Pittsburgh, Pa.	76	0	0	0	0	0	76
East Carolina University							
Greenville, N.C.	91	0	91	0	0	0	0
Eastern New Mexico University							
Portales	29	0	0	29	0	0	0
Edison Welding Institute							
Columbus, Ohio	6,297	0	6,297	0	0	0	0
Emory University							
Atlanta, Ga.	1,031	0	0	0	0	0	1,031

(continued)

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Dollars in thousands

Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Federation of American Societies for Experimental Biology							
Bethesda, Md.	295	0	295	0	0	0	0
Fisk University							
Nashville, Tenn.	175	0	0	0	0	0	175
Florida Institute of Technology							
Melbourne	383	0	128	30	0	0	225
Florida State University System	27,219	151	1,564	8,598	0	0	16,906
Boca Raton	2,564	0	0	380	0	0	2,184
Eglin Air Force Base	79	79	0	0	0	0	0
Fussels Corner	875	0	0	875	0	0	0
Gainesville	5,896	72	760	265	0	0	4,799
Miami	1,543	0	0	0	0	0	1,543
Orlando	8,256	0	600	6,449	0	0	1,207
Pensacola	226	0	0	0	0	0	226
Tallahassee	7,463	0	0	629	0	0	6,834
Tyndall Air Force Base	204	0	204	0	0	0	0
Atlanta, Ga.	113	0	0	0	0	0	113
Fox Chase Cancer Center							
Philadelphia, Pa.	967	0	0	967	0	0	0
George Mason University							
Fairfax, Va.	5,573	0	422	1,501	0	0	3,650
George Washington University							
Washington, D.C.	2,271	0	214	45	0	0	2,012
Georgetown University							
Washington, D.C.	8,802	0	689	268	0	0	7,845
Hahnemann University, Pa.	676	0	0	228	0	0	448
Bethel	228	0	0	228	0	0	0
Philadelphia	448	0	0	0	0	0	448
Hampton University							
Hampton, Va.	1,014	60	0	0	0	0	954

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DOD Funding for RDT&E for Colleges,
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Dollars in thousands

Organization/location	Total funding	Not competed	Contract actions			Grants	
			Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Harvard University, Mass.	12,176	70	1,705	3,963	0	0	6,438
Boston	118	0	0	100	0	0	18
Cambridge	9,879	70	1,705	1,752	0	0	6,352
New England Deaconess Hospital, Boston	2,111	0	0	2,111	0	0	0
Southboro	18	0	0	0	0	0	18
Worcester	50	0	0	0	0	0	50
History of Science Study							
Seattle, Wash.	10	0	0	0	0	0	10
Houston Advanced Research Center, Tex.	556	0	556	0	0	0	0
Houston	76	0	76	0	0	0	0
Woodland	480	0	480	0	0	0	0
Howard University	2,926	450	0	739	0	0	1,737
Washington, D.C.	2,886	450	0	699	0	0	1,737
Sierra Vista, Ariz.	40	0	0	40	0	0	0
Illinois Institute of Technology	64,135	47,603	3,796	6,383	4,560	0	1,793
Chicago, Ill.	58,885	47,603	3,106	6,383	0	0	1,793
La Porte, Ind.	410	0	410	0	0	0	0
Oak Ridge, Tenn.	4,560	0	0	0	4,560	0	0
Rome, N.Y.	280	0	280	0	0	0	0
Indiana University	2,656	0	605	617	380	0	1,054
Bloomington	2,105	0	605	617	0	0	883
Columbus	171	0	0	0	0	0	171
Indianapolis	380	0	0	0	380	0	0
Institute of Gas Technology							
Chicago, Ill.	115	0	115	0	0	0	0
Iowa State University							
Ames	1,705	0	284	0	0	0	1,421
Jackson State University							
Jackson, Miss.	940	0	0	74	0	0	866
Jarvis Christian College							
Hawkins, Tex.	15	0	0	166	0	0	(151)

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Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Thomas Jefferson University							
Philadelphia, Pa.	55	0	0	0	0	0	55
Johns Hopkins University, Md.	244,030	110	487	277	237,451	0	5,705
Applied Physics Lab, Laurel	235,979	0	0	0	235,347	0	632
Baltimore	7,966	110	487	277	2,104	0	4,988
College Park	85	0	0	0	0	0	85
Kansas State University							
Manhattan	8,250	0	0	0	0	7,700	550
Kent State University							
Kent, Ohio	177	0	0	0	0	0	177
Knoxville College							
Knoxville, Tenn.	234	0	0	0	0	0	234
Lehigh University							
Bethlehem, Pa.	4,175	0	40	72	0	0	4,063
Lincoln University							
Lincoln University, Pa.	1,036	0	0	0	0	0	1,036
Linfield Research Institute							
McMinnville, Oreg.	151	0	0	0	0	0	151
Logistics Management Institute	19,510	18,428	0	0	1,082	0	0
Bethesda, Md.	18,428	18,428	0	0	0	0	0
Washington, D.C.	1,082	0	0	0	1,082	0	0
Louisiana State University System	4,257	0	464	469	0	0	3,324
Baton Rouge	2,621	0	464	50	0	0	2,107
Grambling	204	0	0	0	0	0	204
Monterey	1	0	0	0	0	0	1
New Orleans	1,170	0	0	419	0	0	751
Ruston	111	0	0	0	0	0	111
Shreveport	150	0	0	0	0	0	150

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Organization/location	Total funding	Contract actions				Grants	
		Not completed	Completed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Louisiana Tech University							
Ruston	31	0	31	0	0	0	0
Loyola University of Chicago							
Chicago, Ill.	215	0	0	0	0	0	215
Maricopa County Community College District							
Phoenix, Ariz.	133	0	0	0	0	0	133
Marshall University							
Huntington, W.Va.	81	0	0	0	0	0	81
Marywood College							
Scranton, Pa.	10,000	0	0	0	0	10,000	0
Massachusetts Institute of Technology	402,092	4,086	5,851	6,050	343,918	0	42,187
Boston	3,819	0	2,833	986	0	0	0
Bryant Square	502	0	0	0	0	0	502
Cambridge	53,843	4,086	2,808	5,064	200	0	41,685
Lexington	343,718	0	0	0	343,718	0	0
Port Hueneme, Calif.	210	0	210	0	0	0	0
Mayo Foundation							
Rochester, Minn.	4,574	3,931	0	643	0	0	0
McLennan Community College							
Waco, Tex.	2	0	0	0	0	0	2
Medical College of Georgia							
Augusta	10	0	0	0	0	0	10
Medical College of Ohio							
Toledo	250	0	0	0	0	250	0
Medical College of Pennsylvania							
Philadelphia	73	0	0	0	0	0	73
Medical University of South Carolina							
South Carolina Research Authority, Charleston	17,969	16,719	1,250	0	0	0	0

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Organization/location	Total funding	Contract actions			Grants		
		Not competed	Competed		Not available or follow-on	Not available for competition	Completed
			Full/open	Other than full/open			
Meharry Medical College							
Nashville, Tenn.	185	0	0	0	0	0	185
Memphis State University							
Memphis, Tenn.	164	0	164	0	0	0	0
Mercer University							
Warner Robins Air Force Base, Ga.	4,939	4,560	0	379	0	0	0
Miami Valley Research Institute							
Dayton, Ohio	1,095	0	0	1,095	0	0	0
Michigan Molecular Institute							
Midland	91	0	91	0	0	0	0
Michigan State University	1,543	0	205	212	0	0	1,126
Ann Arbor	57	0	57	0	0	0	0
East Lansing	1,486	0	148	212	0	0	1,126
Michigan Technological University							
Houghton	2,703	1,037	869	357	0	0	440
Midwest Research Institute							
Kansas City, Mo.	2,646	0	845	0	1,801	0	0
Millsaps College							
Jackson, Miss.	2	0	0	0	0	0	2
Mississippi State University System	1,942	0	317	53	0	0	1,572
Muldon	95	0	95	0	0	0	0
Naval Air Station	285	0	0	0	0	0	285
State College	275	0	222	53	0	0	0
Mississippi Valley State University, Itta Bena	1,287	0	0	0	0	0	1,287
Monmouth College							
West Long Branch, N.J.	2,300	0	0	0	0	0	2,300

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Organization/location	Total funding	Contract actions			Grants		
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Montana State University							
Bozeman	928	0	0	0	0	0	928
Moravian College							
Moravian, Pa.	23	0	0	0	0	0	23
Morgan State University							
Baltimore, Md.	160	0	0	160	0	0	0
Morris Brown College							
Atlanta, Ga.	827	0	0	0	0	0	827
Mount Wilson Institute							
Pasadena, Calif.	316	316	0	0	0	0	0
National Hispanic University							
Oakland, Calif.	196	0	0	0	0	0	196
North Carolina Community College Board							
Raleigh	291	0	291	0	0	0	0
NCEE ^a							
Rome, N.Y.	51	0	0	51	0	0	0
Neural Information Processing							
Beaverton, Oreg.	27	0	0	0	0	0	27
New Jersey Institute of Technology							
Newark	1,485	0	198	569	0	0	718
New Mexico Highlands University							
Las Vegas, N. Mex.	209	0	0	0	0	0	209
New Mexico Institute of Mining and Technology							
Socorro	5,339	2,803	1,525	137	0	0	874
New Mexico State University	13,796	1,107	740	7,863	0	0	4,086
Las Cruces	13,065	526	590	7,863	0	0	4,086
White Sands Missile Range	731	581	150	0	0	0	0

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Organization/location	Total funding	Contract actions			Grants		
		Not competed	Competed		Not available or follow-on	Not available for competition	Completed
			Full/open	Other than full/open			
New York Botanical Garden							
Millbrook	52	0	52	0	0	0	0
New York Institute of Technology							
Old Westbury	125	0	0	0	0	0	125
New York University	5,164	0	1,270	348	0	0	3,546
New York	4,515	0	1,006	150	0	0	3,359
Stony Brook	385	0	0	198	0	0	187
Tuxedo	264	0	264	0	0	0	0
North Dakota State University							
Fargo	1,087	0	0	553	0	0	534
Northeast Louisiana University							
Monroe	28	0	28	0	0	0	0
Northeastern University							
Boston, Mass.	17,552	0	596	913	0	0	16,043
Northern Illinois University							
De Kalb	278	0	0	0	0	0	278
Northern Michigan University							
Marquette	550	0	0	500	0	0	50
Northwestern University	11,467	895	767	481	0	0	9,324
Chicago	70	0	0	0	0	0	70
Evanston	11,397	895	767	481	0	0	9,254
Nova University							
Fort Lauderdale, Fla.	95	0	0	0	0	0	95
Occidental College							
Los Angeles, Calif.	152	0	0	0	0	0	152
Ohio State University							
Columbus	5,908	70	260	178	0	0	5,400
Ohio University							
Athens	373	120	100	0	0	0	153
Ohio Wesleyan University							
Delaware	66	0	0	66	0	0	0

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Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Oklahoma State University	3,930	0	2,130	245	0	0	1,555
Stillwater	1,830	0	30	245	0	0	1,555
Eglin Air Force Base, Fla.	2,100	0	2,100	0	0	0	0
Old Dominion University							
Norfolk, Va.	954	0	98	50	0	0	806
Oregon Graduate Center	5,325	176	226	2,545	0	0	2,378
Beaverton	5,215	176	226	2,545	0	0	2,268
Portland	110	0	0	0	0	0	110
Oregon State University	6,792	167	120	28	0	0	6,477
Corvallis	6,715	167	120	28	0	0	6,400
Portland	77	0	0	0	0	0	77
Our Lady of the Lake University							
San Antonio, Tex.	190	0	0	0	0	0	190
Pennsylvania State University							
University Park	96,619	5,429	269	206	78,152	0	12,563
Polytechnic University, N.Y.	2,654	400	34	140	0	0	2,080
Brooklyn	2,080	0	0	0	0	0	2,080
Farmingdale	400	400	0	0	0	0	0
New York	174	0	34	140	0	0	0
Princeton University							
Princeton, NJ	14,354	0	470	1,522	0	0	12,362
Purdue University	7,366	227	396	325	545	0	5,873
Lafayette, Ind.	6,866	227	396	325	45	0	5,873
Laurel, Md.	500	0	0	0	500	0	0
Radcliffe College							
Cambridge, Mass.	342	0	0	0	0	0	342
Rand Corporation							
Los Angeles, Calif.	23,980	0	0	0	23,980	0	0
Rensselaer Polytechnic Institute, N.Y.	7,949	180	457	1,165	0	0	6,147
Rensselaer	419	0	419	0	0	0	0
Troy	7,530	180	38	1,165	0	0	6,147

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Organization/location	Total funding	Contract actions			Grants		
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Research Triangle Institute							
Research Triangle Park, N.C.	4,145	0	162	3,983	0	0	0
Rice University							
Houston, Tex.	2,261	100	0	405	0	0	1,756
Rockefeller University, N.Y.	420	0	0	0	0	0	420
Lenox Hill	56	0	0	0	0	0	56
New York	364	0	0	0	0	0	364
Rust College							
Holly Springs, Miss.	163	0	0	163	0	0	0
Rutgers State University, N.J.	14,577	0	7,966	300	0	0	6,311
Burlington Army Ammunition	84	0	0	0	0	0	84
New Brunswick	3,782	0	1,704	0	0	0	2,078
Piscataway	10,711	0	6,262	300	0	0	4,149
Sam Houston State University							
Huntsville, Tex.	10,000	0	0	0	0	0	10,000
Scripps Clinic Research Foundation							
San Diego, Calif.	158	0	0	158	0	0	0
Seattle Biomedical Research Institute							
Seattle, Wash.	141	0	0	141	0	0	0
Seattle Pacific University							
Seattle, Wash.	24	0	0	0	0	0	24
Shaw University							
Phoenix, Ariz.	54	0	0	0	0	0	54
Shippensburg University							
Shippensburg, Pa.	43	0	43	0	0	0	0
South Carolina State University							
Orangeburg	121	0	0	0	0	0	121

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Organization/location	Total funding	Contract actions			Grants		
		Not completed	Competed		Not available or follow-on	Not available for competition	Completed
			Full/open	Other than full/open			
South Dakota School of Mines and Technology							
Rapid City	53	0	0	0	0	0	53
Southeastern Louisiana University							
Hammond	36	0	36	0	0	0	0
Southern Methodist University							
Dallas, Tex.	1,852	0	124	1,573	0	0	155
Southern University and A & M College							
Baton Rouge, La.	1,312	0	0	285	0	0	1,027
Southwest Texas State University							
San Marcos	50	0	0	0	0	0	50
Southwestern Ohio Council Higher Education							
Dayton	561	0	0	561	0	0	0
Spelman College							
Atlanta, Ga.	1,150	0	0	0	0	0	1,150
St. Louis University							
St. Louis, Mo.	168	0	27	0	0	0	141
Stanford University, Calif.	38,145	1,800	1,399	8,450	0	0	26,496
Santa Clara	12,468	1,800	881	951	0	0	8,836
Stanford	23,746	0	163	5,923	0	0	17,660
Kestrel Institute	1,931	0	355	1,576	0	0	0
Palo Alto	1,826	0	355	1,471	0	0	0
Palo Cedro	105	0	0	105	0	0	0
Stevens Institute of Technology							
Hoboken, N.J.	1,935	0	0	509	0	0	1,426
St. Petersburg Junior College							
St. Petersburg, Fla.	2	0	0	0	0	0	2

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Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
State University of New York	9,712	0	0	1,355	427	0	7,930
Albany	1,739	0	0	764	0	0	975
Amherst	1,751	0	0	0	0	0	1,751
Binghamton	232	0	0	50	0	0	182
Buffalo	276	0	0	0	0	0	276
Cortland	38	0	0	38	0	0	0
Fashion Institute of Technology, New York	883	0	0	456	427	0	0
Stony Brook	4,793	0	0	47	0	0	4,746
Syracuse University							
Syracuse, N.Y.	1,425	0	242	691	0	0	492
Temple University							
Philadelphia, Pa.	354	0	63	0	0	0	291
Tennessee State University System	1,193	0	0	0	0	0	1,193
Memphis	154	0	0	0	0	0	154
Nashville	908	0	0	0	0	0	908
Avon Williams Campus, Promise	131	0	0	0	0	0	131
Texas A & M University System	7,306	165	268	248	0	0	6,625
Austin	101	0	0	0	0	0	101
College Station	6,780	100	268	248	0	0	6,164
Galveston	65	65	0	0	0	0	0
Kingsville	360	0	0	0	0	0	360
Texas Christian University							
Fort Worth	103	0	0	0	0	0	103
Texas Tech University							
Lubbock	1,079	710	65	0	0	0	304
Thomas Jefferson University							
Philadelphia, Pa.	251	0	0	251	0	0	0
Troy State University System							
Fort Myer, Va.	8	0	0	0	0	0	8

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Organization/location	Total funding	Contract actions			Grants	
		Not competed	Competed		Not available for competition	Competed
			Full/open	Other than full/open		
Tufts University, Mass.	1,240	0	86	175	0	979
Boston	545	0	0	0	0	545
Medford	695	0	86	175	0	434
Tulane University						
New Orleans, La.	1,063	0	109	0	0	954
Tuskegee University						
Tuskegee, Ala.	2,377	0	0	129	0	2,248
Universities Space Research Association	1,590	0	1,208	382	0	0
Columbia, Md.	1,277	0	1,208	69	0	0
Washington, D.C.	313	0	0	313	0	0
University of Akron						
Akron, Ohio	310	0	0	0	0	310
University of Alabama	9,889	5,309	656	1,794	0	2,130
Birmingham	2,237	0	0	850	0	1,387
Huntsville	5,935	5,104	115	325	0	391
Tuscaloosa	695	205	47	91	0	352
Chapel Hill, N.C.	1,022	0	494	528	0	0
University of Alaska						
Fairbanks	707	40	0	0	0	667
University of Arizona						
Tucson	8,605	246	1,597	1,691	0	5,071
University of Arkansas	3,949	0	174	0	0	3,775
Fayetteville	3,700	0	174	0	0	3,526
Little Rock	249	0	0	0	0	249
University of Bridgeport						
Bridgeport, Conn.	54	0	27	0	27	0
University of California System	76,533	2,738	4,053	8,081	145	61,516
Berkeley	12,612	0	177	2,599	0	9,836
Davis	1,575	0	70	166	45	1,294
Hilmar-Irwin	76	0	0	76	0	0
Irvine	6,029	0	399	778	0	4,852
Isla Vista	67	0	0	67	0	0
La Jolla	18,773	0	0	0	0	18,773

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Organization/location	Total funding	Contract actions				Grants	
		Not completed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Lawrence Livermore National Laboratory, Livermore	100	0	0	0	100	0	0
Los Angeles	14,492	0	2,015	1,380	0	0	11,097
Placentia	1,246	405	57	784	0	0	0
Riverside	624	0	0	0	0	0	624
San Diego	4,646	2,333	760	1,110	0	0	443
San Francisco	1,048	0	0	438	0	0	610
Santa Cruz	15,245	0	575	683	0	0	13,987
University of Chicago, Ill.	3,300	30	193	271	58	0	2,748
Argonne National Laboratory, Argonne	58	0	0	0	58	0	0
Chicago	3,242	30	193	271	0	0	2,748
University of Cincinnati							
Cincinnati, Ohio	3,733	0	484	921	0	0	2,328
University of Colorado	7,774	85	352	771	0	0	6,566
Boulder	6,782	85	295	593	0	0	5,809
Colorado Springs	275	0	0	0	0	0	275
Denver	717	0	57	178	0	0	482
University of Connecticut	1,917	50	87	100	0	0	1,680
Farmington	346	0	0	0	0	0	346
Storrs	1,571	50	87	100	0	0	1,334
University of Dayton	36,051	320	35,152	175	262	0	142
Dayton, Ohio	25,837	320	24,938	175	262	0	142
Williams Air Force Base, Ariz.	5,635	0	5,635	0	0	0	0
Edwards Air Force Base, Calif.	4,579	0	4,579	0	0	0	0
University of Delaware							
Newark	4,617	0	564	0	0	0	4,053
University of Denver							
Denver, Colo.	447	0	175	0	0	0	272
University of Detroit Mercy							
Detroit, Mich.	144	0	144	0	0	0	0

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		Not competed	Competed		Not available for competition	Competed
			Full/open	Other than full/open		
University of the District of Columbia						
Washington, D.C.	190	0	0	0	0	190
University of Georgia System	29,918	8,642	7,279	7,410	5,257	1,330
Athens	1,330	0	0	0	0	1,330
Augusta	119	0	0	119	0	0
Georgia Institute of Technology, Atlanta	28,469	8,642	7,279	7,291	5,257	0
University of Hawaii						
Honolulu	3,448	77	154	609	0	2,608
University of Houston System						
Houston, Tex.	1,398	0	0	0	0	1,398
University of Idaho						
Moscow	326	0	0	0	0	326
University of Illinois	17,545	215	2,659	1,929	246	12,496
Champaign	10,320	215	1,620	396	246	7,843
Chicago	6,409	0	939	1,070	0	4,400
Urbana	816	0	100	463	0	253
University of Iowa	3,325	321	393	339	0	2,272
Iowa City	3,254	321	322	339	0	2,272
Institute of Hydraulic Research, Iowa City	71	0	71	0	0	0
University of Kansas						
Lawrence	1,613	0	201	40	0	1,372
University of Kentucky						
Lexington-Fayette	598	0	0	339	0	259
University of Louisville						
Louisville, Ky.	621	0	39	331	0	251
University of Maine						
Orono	348	0	0	0	0	348

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		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
University of Maryland System	15,870	137	3,378	2,622	0	0	9,733
Baltimore	1,727	80	0	571	0	0	1,076
Catonsville	436	0	0	0	0	0	436
College Park	12,436	57	3,328	830	0	0	8,221
East Chop	225	0	0	225	0	0	0
Princess Anne	52	0	0	52	0	0	0
Queenstown	245	0	0	245	0	0	0
Wheaton	749	0	50	699	0	0	0
University of Massachusetts System	12,564	0	1,686	4,437	0	0	6,441
Amherst	10,288	0	806	3,633	0	0	5,849
Boston	50	0	50	0	0	0	0
Lowell	1,708	0	830	286	0	0	592
Worcester	518	0	0	518	0	0	0
University of Miami, Fla.	5,758	68	0	310	0	0	5,380
Coral Gables	5,380	0	0	0	0	0	5,380
Miami	378	68	0	310	0	0	0
University of Michigan	20,222	271	1,123	3,317	0	0	15,511
Ann Arbor	20,152	271	1,123	3,317	0	0	15,441
Ashrama	70	0	0	0	0	0	70
University of Minnesota System	15,530	(8,803)	228	7,182	0	10,000	6,923
Duluth	41	0	0	0	0	0	41
Minneapolis	14,624	(8,803)	78	7,182	0	10,000	6,167
Navarre	52	0	0	0	0	0	52
St. Paul	813	0	150	0	0	0	663
University of Mississippi	1,363	0	839	69	0	0	455
Jackson	161	0	161	0	0	0	0
Lafayette	944	0	489	0	0	0	455
Oxford	189	0	189	0	0	0	0
Updike	69	0	0	69	0	0	0

(continued)

**Appendix I
DOD Funding for RDT&E for Colleges,
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Dollars in thousands

Organization/location	Total funding	Contract actions			Grants	
		Not completed	Completed		Not available for competition	Completed
			Full/open	Other than full/open		
University of Missouri	2,903	0	416	0	0	2,487
Columbia	1,185	0	0	0	0	1,185
Kansas City	281	0	0	0	0	281
Rolla	1,072	0	416	0	0	656
St. Louis	365	0	0	0	0	365
University of Nebraska						
Lincoln	1,309	0	69	0	0	1,240
University of Nevada System	685	0	564	0	0	121
Las Vegas	485	0	485	0	0	0
Reno	200	0	79	0	0	121
University of New Hampshire						
Durham	486	0	28	26	0	432
University of New Mexico	9,876	4,353	295	1,245	0	3,983
Albuquerque	9,287	3,928	431	945	0	3,983
Kirtland Air Force Base	525	425	(200)	300	0	0
Cleveland, Ohio	64	0	64	0	0	0
University of North Carolina	15,003	382	280	1,604	0	12,737
Chapel Hill	2,576	0	0	0	0	2,576
Charlotte	736	0	0	0	0	736
Durham	277	0	0	0	0	277
Greensboro	4,502	382	0	920	0	3,200
Raleigh	6,833	0	280	684	0	5,869
Wilmington	79	0	0	0	0	79
University of North Dakota						
Grand Forks	199	0	34	165	0	0
University of North Texas						
Denton	943	0	254	0	0	689
University of Notre Dame						
Notre Dame, Ind.	1,331	0	0	0	0	1,331

(continued)

**Appendix I
DOD Funding for RDT&E for Colleges,
Universities, and Other Related
Organizations in Fiscal Year 1993**

Dollars in thousands

Organization/location	Total funding	Contract actions			Grants		
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
University of Oklahoma	1,167	0	192	268	0	0	707
Norman	1,084	0	192	185	0	0	707
Oklahoma City	83	0	0	83	0	0	0
University of Oregon							
Eugene	1,167	0	0	75	0	0	1,092
University of Pennsylvania							
Philadelphia	21,922	0	81	4,265	0	10,000	7,576
University of Pittsburgh, Pa.	46,690	40,009	2,071	380	0	0	4,230
Johnstown	40,009	40,009	0	0	0	0	0
Pittsburgh	6,681	0	2,071	380	0	0	4,230
University of Puerto Rico	1,094	0	0	0	0	0	1,094
Mayaguez	426	0	0	0	0	0	426
Rio Piedras	399	0	0	0	0	0	399
San Juan	269	0	0	0	0	0	269
University of Rhode Island	2,078	0	0	0	0	0	2,078
Kingston	765	0	0	0	0	0	765
Narragansett	1,073	0	0	0	0	0	1,073
Providence	240	0	0	0	0	0	240
University of Rochester							
Rochester, N.Y.	4,246	0	250	92	0	0	3,904
University of South Alabama							
Mobile	98	0	98	0	0	0	0
University of South Carolina							
Columbia	2,893	0	0	0	0	0	2,893
University of South Florida	1,125	0	100	79	0	0	946
St. Petersburg	195	0	0	0	0	0	195
Tampa	930	0	100	79	0	0	751

(continued)

**Appendix I
DOD Funding for RDT&E for Colleges,
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Dollars in thousands

Organization/location	Total funding	Contract actions			Grants	
		Not completed	Competed		Not available for competition	Competed
			Full/open	Other than full/open		
University of Southern California	31,391	2,390	7,287	12,028	0	9,686
Irvine	190	0	0	190	0	0
Los Angeles	30,966	2,390	7,287	11,838	0	9,451
Redondo Beach	235	0	0	0	0	235
University of Southern Mississippi						
Hattiesburg	1,444	0	217	0	0	1,227
University of Southwestern Louisiana						
Lafayette	224	0	0	0	0	224
University of Tennessee	3,625	0	71	1,234	0	2,320
Knoxville	2,715	0	71	939	0	1,705
Martin	132	0	0	0	0	132
Memphis	290	0	0	0	0	290
Tullahoma	488	0	0	295	0	193
University of Texas System	80,019	5,156	15,629	2,175	39,858	11,201
Arlington	1,319	525	63	283	0	448
Austin	73,315	4,631	14,110	1,053	39,858	7,663
College Station	54	0	0	0	0	54
Dallas	295	0	0	215	0	80
El Paso	1,487	0	0	74	0	1,413
Galveston	178	0	0	0	0	178
Health Science Center at Dallas	52	0	0	0	0	52
Houston	562	0	0	0	0	562
Hudson	1,150	0	1,150	0	0	0
Odessa	61	0	61	0	0	0
Richardson	921	0	245	550	0	126
San Antonio	625	0	0	0	0	625
University of Toledo						
Toledo, Ohio	94	0	0	0	0	94
University of Tulsa						
Tulsa, Okla.	141	0	0	0	0	141

(continued)

**Appendix I
DOD Funding for RDT&E for Colleges,
Universities, and Other Related
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Dollars in thousands

Organization/location	Total funding	Contract actions			Grants	
		Not competed	Competed		Not available for competition	Competed
			Full/open	Other than full/open		
University of Utah						
Salt Lake City	8,234	0	224	1,214	0	6,796
University of Vermont						
Burlington	295	0	0	0	0	295
University of Virginia	5,654	1,022	653	329	112	3,538
Charlottesville	5,254	1,022	253	329	112	3,538
York, Pa.	400	0	400	0	0	0
University of Washington						
Seattle	35,090	133	1,438	1,080	15,801	16,638
University of Wisconsin	11,900	0	832	1,339	0	9,729
Kenosha	31	0	0	0	0	31
Madison	10,861	0	704	1,289	0	8,868
Milwaukee	859	0	29	0	0	830
Superior	99	0	99	0	0	0
Austin, Tex.	50	0	0	50	0	0
University of Wyoming						
Laramie	1,542	0	88	29	0	1,425
Utah State University						
Logan	24,623	11,703	1,142	10,530	935	313
Vanderbilt University						
Nashville, Tenn.	5,720	0	637	3,829	0	1,254
Vassar College						
Poughkeepsie, N.Y.	124	0	0	0	0	124
Virginia Commonwealth University						
Richmond	872	0	0	286	0	586
Virginia Polytechnic Institute and State University						
Blacksburg	7,475	60	1,052	65	705	5,593
Wake Forest University						
Winston-Salem, N.C.	65	0	0	0	0	65

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**Appendix I
DOD Funding for RDT&E for Colleges,
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Dollars in thousands

Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Washington State University							
Pullman	2,956	276	681	215	0	0	1,784
Washington University							
St. Louis, Mo.	3,125	0	154	399	0	0	2,572
Wayne State University							
Detroit, Mich.	1,961	0	297	(27)	0	0	1,691
Wentworth Institute of Technology							
Boston, Mass.	1,861	0	1,806	0	55	0	0
Wesleyan University							
Middletown, Conn.	168	0	0	0	0	0	168
West Virginia University							
Morgantown	10,837	0	118	0	0	0	10,719
Western Illinois University							
Macomb	54	0	0	0	0	0	54
Western Michigan University							
Kalamazoo	97	0	0	0	0	0	97
Western Washington University							
Bellingham	110	0	0	0	0	0	110
Wichita State University							
Wichita, Kans.	65	0	0	0	0	0	65
Woods Hole Oceanographic Institution							
Woods Hole, Mass.	27,184	1,590	385	3,172	0	0	22,037
Worcester Polytechnic Institute							
Worcester, Mass.	2,294	0	0	905	0	0	1,389
Wright State University, Ohio							
Dayton	2,474	150	319	1,154	0	0	851
Dayton	1,365	150	229	135	0	0	851
Wright Patterson Air Force Base							
Wright Patterson Air Force Base	1,109	0	90	1,019	0	0	0

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**Appendix I
DOD Funding for RDT&E for Colleges,
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Organizations in Fiscal Year 1993**

Dollars in thousands

Organization/location	Total funding	Contract actions			Grants		
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
West Virginia Institute of Technology							
Montgomery	182	0	0	182	0	0	0
Xavier University of Louisiana							
New Orleans	89	0	0	0	0	0	89
Yale University, Conn.	7,805	277	0	300	0	0	7,228
John B. Pierce Laboratory, New Haven	100	100	0	0	0	0	0
New Haven	7,705	177	0	300	0	0	7,228
Domestic subtotal	\$2,168,772^b	\$237,387^c	\$167,336^d	\$204,658^e	\$790,779^f	\$74,950^g	\$693,662^h
Foreign organizations							
Canada							
University of Waterloo	842	0	842	0	0	0	0
France							
Institute des Sciences	40	0	0	40	0	0	0
Germany							
Ernst Machine Institute	210	210	0	0	0	0	0
Israel	819	33	0	786	0	0	0
Hebrew University of Jerusalem	183	33	0	150	0	0	0
Tel Aviv University	186	0	0	186	0	0	0
Weizmann Institute of Science	450	0	0	450	0	0	0
Italy							
University of Rome	40	0	0	40	0	0	0

(continued)

**Appendix I
DOD Funding for RDT&E for Colleges,
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Dollars in thousands

Organization/location	Total funding	Contract actions				Grants	
		Not competed	Competed		Not available or follow-on	Not available for competition	Competed
			Full/open	Other than full/open			
Soviet Union (former)	81	81	0	0	0	0	0
High Current Electronics Institute	50	50	0	0	0	0	0
Institute of Thermal Physics and Electrophysics	31	31	0	0	0	0	0
Sweden							
Lund Institute of Technology	104	0	0	104	0	0	0
United Kingdom	1,033	208	45	780	0	0	0
Cranfield Institute of Technology	90	0	0	90	0	0	0
Culham Laboratory	225	0	0	225	0	0	0
Imperial College of Science	40	0	0	40	0	0	0
University College London	90	0	0	90	0	0	0
University of Bristol	72	72	0	0	0	0	0
University of Cambridge	150	0	0	150	0	0	0
University of Edinburgh	125	0	0	125	0	0	0
University of Hull	45	0	45	0	0	0	0
University of Manchester	60	0	0	60	0	0	0
University of Sheffield	52	52	0	0	0	0	0
University of Strathclyde	84	84	0	0	0	0	0
Foreign subtotal	\$3,169	\$532^l	\$887^l	\$1,750^k	0	0	0
Overall total	\$2,171,941	\$237,919	\$168,223	\$206,408	\$790,779	\$74,950	\$693,662

(Table notes on next page)

**Appendix I
DOD Funding for RDT&E for Colleges,
Universities, and Other Related
Organizations in Fiscal Year 1993**

^aThis listing corresponds to an entry in WHS reports; we were unable to further identify the organization.

^bDomestic contracts subtotal is \$1,400,160,000, or 65 percent of funding; domestic grants subtotal is \$768,612,000, or 35 percent of funding.

^cOf contract actions, 17 percent were not competed.

^dOf contract actions, 12 percent were competed with full and open competitive procedures.

^eOf contract actions, 15 percent were competed with other competitive procedures.

^fOf contract actions, 56 percent were not available for competition or were follow-ons to previously competed actions.

^gOf grants, 10 percent were not available for competition.

^hOf grants, 90 percent were competed.

ⁱOf foreign contract actions, 17 percent were not competed.

^jOf foreign contract actions, 28 percent were competed with full/open competitive procedures.

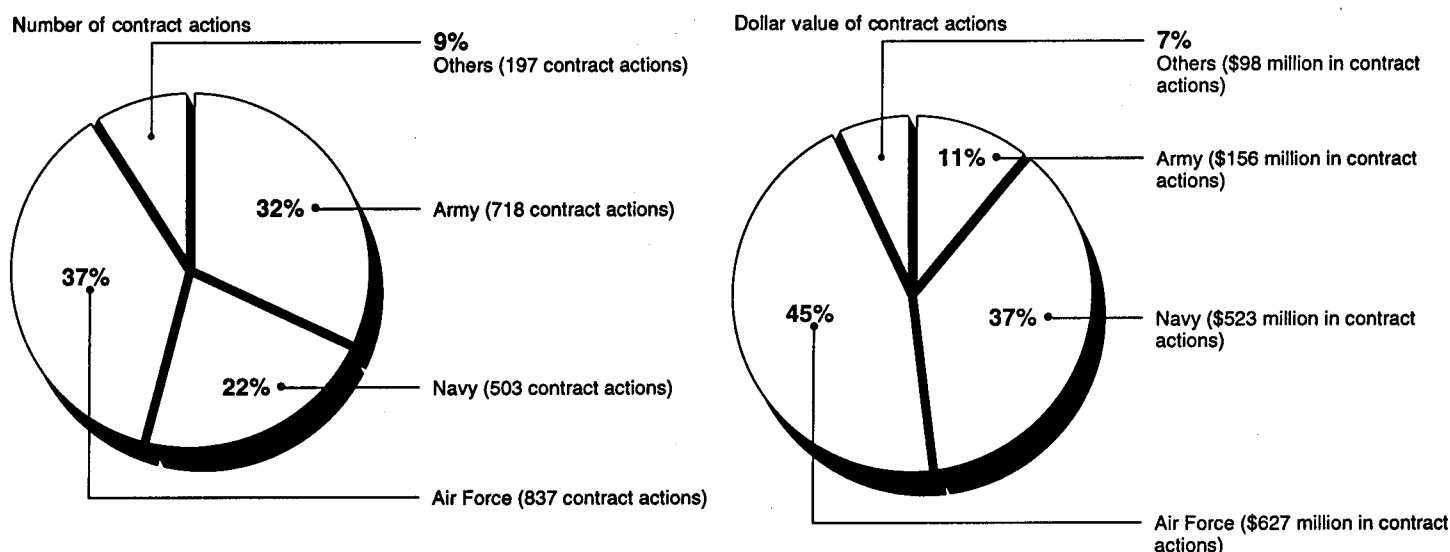
^kOf foreign contract actions, 55 percent were competed with other competitive procedures.

Note: Columns and rows may not total due to rounding.

DOD Agencies Awarding Contracts and Grants to Colleges, Universities, and Other Related Organizations (Including Foreign) in Fiscal Year 1993

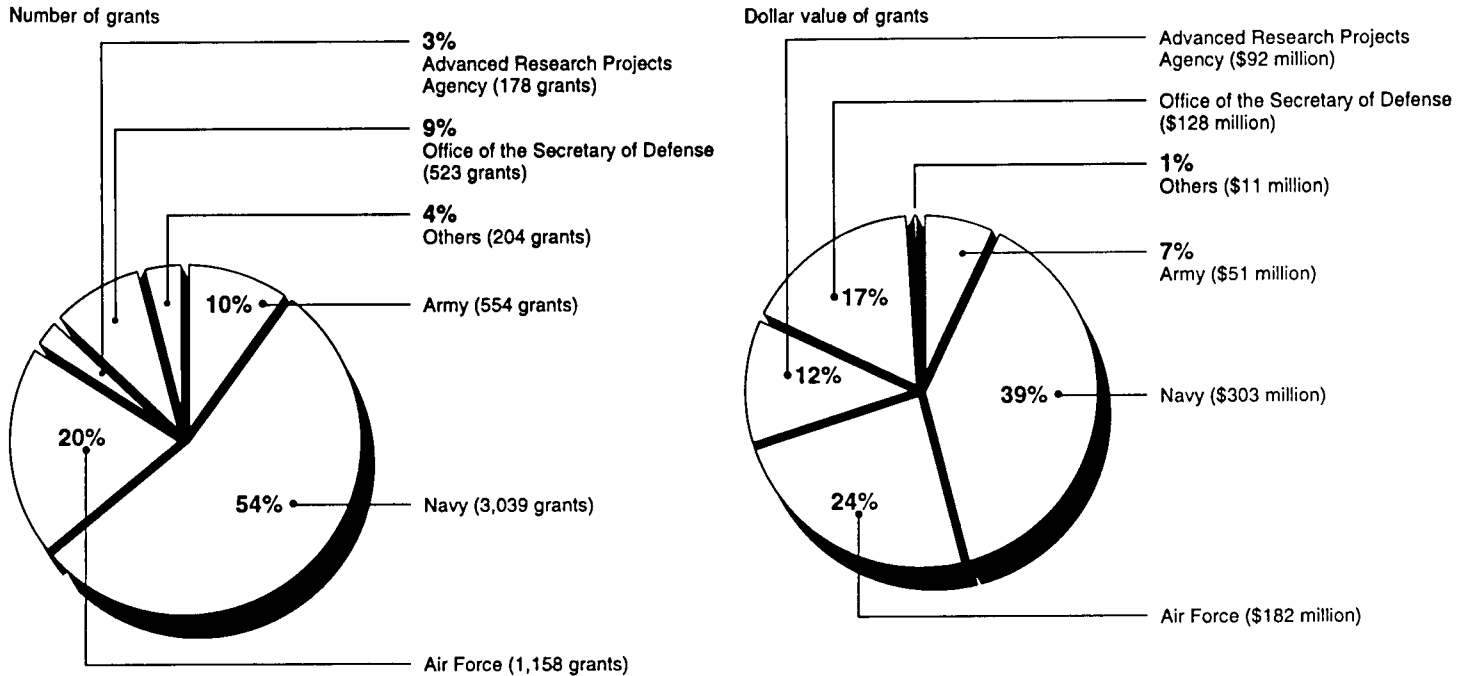
Figures II.1 and II.2 show the DOD agencies awarding contracts and grants to colleges, universities, and other related organizations (including foreign recipients) in fiscal year 1993. The figures on the left show the number of award actions in fiscal year 1993, while figures on the right show the value of those actions. In fiscal year 1993, the Air Force awarded the most contract dollars, \$627 million, while the Navy awarded the most grant dollars, \$303 million.

Figure II.1: DOD Agencies Awarding Contracts for RDT&E to Colleges, Universities, and Other Related Organizations (Including Foreign) in Fiscal Year 1993



**Appendix II
DOD Agencies Awarding Contracts and
Grants to Colleges, Universities, and Other
Related Organizations (Including Foreign) in
Fiscal Year 1993**

Figure II.2: DOD Agencies Awarding Grants for RDT&E to Colleges, Universities, and Other Related Organizations (Including Foreign) in Fiscal Year 1993



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